

# **Manufacturing Method of the Grip Rubber for the Exercise Device**

## **BACKGROUND OF THE INVENTION**

### **5 1) FIELD OF THE INVENTION**

The invention herein is a manufacturing method of the mildewproof and antibacterial grip rubber for the exercise device, mainly by spreading the mildewproof, the antibacterial and the aromatic agents over the grip rubber or immersing the grip rubber in the mixed liquid of the mildewproof, the  
10 antibacterial and the aromatic agents to allow the mildewproof, the antibacterial and the aromatic agents to attach to the grip rubber thus to achieve the mildewproof and the antibacterial objectives.

### **2) DESCRIPTION OF THE PRIOR ART**

Along with the approaching of the industrial and commercial era, the  
15 steps of people's lives become busier, the social appointments increase more and many kinds of physical pain start to occur. Therefore, people try all kinds of sports to exercise their bodies and improve the blood circulation in order to achieve the objective of fitness building and relaxing. Wherein, the ball sports have been preferred by many people, especially those using the devices to  
20 smite, such as the badminton, the baseball, the gulf, etc. All the handle portions

of the ball sports mentioned above have the grip rubber. The grip rubber is manufactured by diluting the DMF (dimethylformamide) solvent into the PU (plutonium) resin; then the mixed liquid will be spread on the surface of the non-woven fabrics; finally, the grip rubber will be immersed in the water to let  
5 the PU resin to freeze and finish the manufacture. Wherein, since the DMF solvent is a high watery substance, it will penetrate the surface of the freezing and molding PU resin to form air holes thus to make the grip rubber capable of venting the heat and absorbing the sweat. Although the mentioned grip rubber provides the comfortable grip for the user, the mildewing situation and  
10 bacterial reproduction will happen due to long-time sweat absorbing and exposing in the rain (water absorbing). That causes trouble and inconvenience in using.

Therefore, how to make the grip rubber have the mildewproof and antibacterial effect is the urgent problem for the manufacturer to overcome.

## 15 SUMMARY OF THE INVENTION

In view of the forgoing section, the inventor of the invention herein, based on the experience and knowledge cumulated from engaging in related fields for many years, after continuous researches and experiments, finally culminated a manufacturing method of a mildewproof and antibacterial grip  
20 rubber for the exercise device, mainly by adding and mixing the mildewproof,

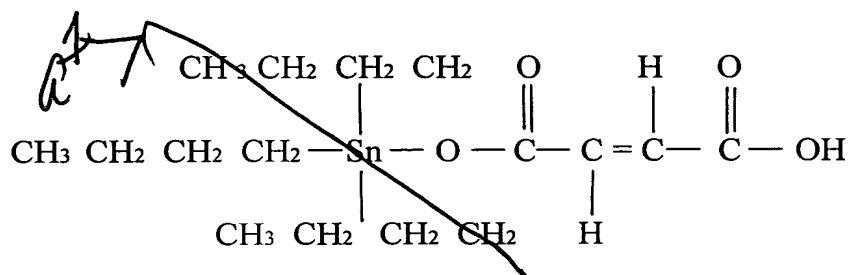
the antibacterial and the aromatic agents to the PU resin diluting by the DMF solvent; then by spreading the mixture on the non-woven fabrics, and finally by immersing the grip rubber frozen and molded by the PU resin immersed in the water, thus to allow the mildewproof, the antibacterial and the aromatic agents  
5 to be absorbed and attached to the grip rubber to have the efficiency of being mildewproof and antibacterial.

Therefore, the primary objective of the invention herein is to provide a manufacturing method of the grip rubber for the exercise device, wherein, through the attachment and the absorption of the mildewproof, the antibacterial  
10 and the aromatic agents to make the grip rubber have the mildewproof and antibacterial effect, and at the same time, the odor caused by the cumulated sweat can be eliminated so as to achieve the objective of being sterilized and odorless.

The following detailed description is provided to enable a further  
15 understanding of the features and the innovation of the invention herein,

#### **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

First, the PU resin is added to the DMF solvent for diluting, then the mildewproof, the antibacterial and the aromatic agents are added to mix, wherein the mildewproof and the antibacterial agents can be shown as the  
20 chemical solvent as:



Then the mixed substance will be spread onto the non-woven fabrics and  
 5 fastened to the handle portion of the exercise device; finally, the grip rubber  
 will be immersed in the water to allow the PU resin to freeze and mold;  
 therefore, the mildewproof, the antibacterial and the aromatic agents are  
 attached to the grip rubber to make it have the mildewproof and antibacterial  
 effect.

10 For sure that the invention herein can also be manufactured by first  
 molding the grip rubber, then immersing it in the mixed liquid of the  
 mildewproof, the antibacterial and the aromatic agents to permit the  
 mildewproof, the antibacterial and aromatic agents attach to it and to make the  
 grip rubber have the effect of being mildewproof, antibacterial and eliminating  
 15 the odor.

In summation of the foregoing sections, the invention herein, relating to  
 the manufacturing method of the grip rubber for the exercise device capable of  
 definitely eliminating the situation of bacterial reproduction and the odor  
 occurred on the grip rubber, and providing sanitary and comfortable holding for  
 20 the exercise device, complies with all new patent application requirements and

